

**TRANSLATION**

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>A2004/00458</b>	<b>FOR FURTHER ACTION</b>		See Form PCT/IPEA/416
International application No. <b>PCT/AT2005/000068</b>	International filing date ( <i>day/month/year</i> ) <b>04.03.2005</b>	Priority date ( <i>day/month/year</i> ) <b>15.03.2004</b>	
International Patent Classification (IPC) or national classification and IPC <b>B66F9/07</b>			
Applicant <b>TGW TRANSPORTGERÄTE GMBH</b>			

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <b>7</b> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of <b>16</b> sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>
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<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>
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Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.  
PCT/AT2005/000068

## Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
 

This report is based on translations from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:
 
  - international search (Rule 12.3 and 23.1(b))
  - publication of the international application (Rule 12.4)
  - international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the **elements** of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):
 

the international application as originally filed/furnished  
 the description:  
 pages 8-24 as originally filed/furnished  
 pages\* 1-7, 7a received by this Authority on /filed with the demand  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

the claims:  
 nos. \_\_\_\_\_ as originally filed/furnished  
 nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19  
 nos.\* 1-34 received by this Authority on /filed with the demand  
 nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

the drawings:  
 sheets 1/10-10/10 as originally filed/furnished  
 sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3.  The amendments have resulted in the cancellation of:
 

the description, pages \_\_\_\_\_  
 the claims, nos. \_\_\_\_\_  
 the drawings, sheets/figs \_\_\_\_\_  
 the sequence listing (*specify*): \_\_\_\_\_  
 any table(s) related to sequence listing (*specify*): \_\_\_\_\_
4.  This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
 

the description, pages \_\_\_\_\_  
 the claims, nos. 5 \_\_\_\_\_  
 the drawings, sheets/figs \_\_\_\_\_  
 the sequence listing (*specify*): \_\_\_\_\_  
 any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. V	<b>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</b>																									
<p><b>1. Statement</b></p> <table> <tr> <td>Novelty (N)</td> <td>Claims</td> <td>1–34</td> <td>YES</td> </tr> <tr> <td></td> <td>Claims</td> <td></td> <td>NO</td> </tr> <tr> <td>Inventive step (IS)</td> <td>Claims</td> <td>1–34</td> <td>YES</td> </tr> <tr> <td></td> <td>Claims</td> <td></td> <td>NO</td> </tr> <tr> <td>Industrial applicability (IA)</td> <td>Claims</td> <td>1–34</td> <td>YES</td> </tr> <tr> <td></td> <td>Claims</td> <td></td> <td>NO</td> </tr> </table>			Novelty (N)	Claims	1–34	YES		Claims		NO	Inventive step (IS)	Claims	1–34	YES		Claims		NO	Industrial applicability (IA)	Claims	1–34	YES		Claims		NO
Novelty (N)	Claims	1–34	YES																							
	Claims		NO																							
Inventive step (IS)	Claims	1–34	YES																							
	Claims		NO																							
Industrial applicability (IA)	Claims	1–34	YES																							
	Claims		NO																							
<p><b>2. Citations and explanations (Rule 70.7)</b></p> <p><b>1. Independent claim 1:</b></p> <p><b>1.1. PCT Article 33(2):</b></p> <p>Document D1: DE 299 21 514 U1 is considered to be the closest prior art. It discloses a computer-controlled transportation apparatus as per the preamble of claim 1 which comprises a vertical mast 12 which can be moved horizontally by at least one running gear, a lifting platform 13 which is guided on said mast and can be vertically adjusted by means of a first lifting drive, and a holding table 15 which can be vertically lifted and lowered in relation to said lifting platform by means of a second lifting drive and which comprises a rack on which at least one auxiliary loading means can be placed such that it lies only in one plane, and a load-holding apparatus 14 for inserting auxiliary loading means, for example containers, boxes and the like, into and removing them from a shelf compartment of a storage shelf is arranged on the lifting platform 13 and comprises a rack on which at least one auxiliary loading means can be placed such that it lies only in one plane, wherein the lifting platform 13 and the holding table 15 are arranged</p>																										

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one above the other.

The subject matter of claim 1 therefore differs from the transportation device as per D1 by means of the features of the characterizing part.

The subject matter of claim 1 is therefore novel (PCT Article 33(2)).

**1.2. PCT Article 33(3):**

The problem addressed by the present invention can therefore be considered that of providing a computer-controlled transportation apparatus which has a high degree of flexibility.

D2: US 4 465 174 A exhibits a transportation apparatus having a load-holding apparatus 18 with supporting arms which can be moved toward and away from one another in synchronism.

The available prior art neither exhibits or suggests a computer-controlled transportation apparatus characterized in that the load-holding apparatus has two telescopic push arms which are situated parallel to one another, can be moved toward and away from one another in synchronism to a limited extent in each case by an adjustment path by means of an adjusting drive, can be extended in the direction of the shelf compartment and serve to insert and remove the auxiliary loading means, and the holding table comprises a lifting support frame which has an outer contour which approximately corresponds to the outer

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contour of the lifting platform and in which at least one aperture is formed, wherein this aperture has a first main dimension parallel to the longitudinal extent of the telescopic push arms which is slightly greater than the maximum length of a telescopic push arm which is retracted onto the lifting platform, and a second main dimension perpendicular to the longitudinal extent of the telescopic push arms which is greater than the sum of the maximum widths of the telescopic push arms which are retracted onto the lifting platform plus the maximum adjustment path of a telescopic push arm, and in that the holding table can be moved out of the receiving and/or transfer position, which is aligned with a horizontal bearing area of the lifting platform or lowered in relation to the bearing area of the lifting platform, and beyond the bearing area into the transportation position by means of the second lifting drive and is mounted on at least one linear guide which runs parallel to the mast, wherein the two telescopic push arms pass through the aperture in the receiving and/or transfer position of the holding table.

The subject matter of claim 1 therefore involves an inventive step (PCT Article 33(3)).

## 2. Independent claim 5:

## 2.1. PCT Article 33(2):

Document D1: DE 299 21 514 U1 is considered to be the closest prior art. It discloses a computer-controlled transportation apparatus as per the

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preamble of claim 5 which comprises a vertical mast 12 which can be moved horizontally by at least one running gear, a lifting platform 13 which is guided on said mast and can be vertically adjusted by means of a first lifting drive, and a holding table 15 which can be vertically lifted and lowered in relation to said lifting platform by means of a second lifting drive and which comprises a rack on which at least one auxiliary loading means can be placed such that it lies only in one plane, and a load-holding apparatus 14 for inserting auxiliary loading means, for example containers, boxes and the like, into and removing them from a shelf compartment of a storage shelf is arranged on the lifting platform 13 and comprises a rack on which at least one auxiliary loading means can be placed such that it lies only in one plane, wherein the lifting platform 13 and the holding table 15 are arranged one above the other.

The subject matter of claim 5 therefore differs from the transportation device as per D1 by means of the features of the characterizing part.

The subject matter of claim 5 is therefore novel (PCT Article 33(2)).

**2.2. PCT Article 33(3):**

The problem addressed by the present invention can therefore be considered that of providing a computer-controlled transportation apparatus which has a high degree of flexibility.

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Of the cited prior art documents, only document D2 exhibits a transportation apparatus having two separate lifting drives; however, D2 does not exhibit a lifting platform but a horizontal conveyor section 14 which is provided with rollers and on which the outwardly projecting lips 24a, 24b of the containers to be transported are placed while the holding table 18 is still being moved downward, with the result that it is not necessary to stop the holding table 18 in a controlled manner with respect to the horizontal conveyor section.

Therefore, neither stopping of the holding table in a controlled manner with respect to the lifting platform nor the corresponding sensor system is suggested by D2 or the other cited prior art documents.

The subject matter of claim 5 involves an inventive step (PCT Article 33(3)) for these reasons.

**3. Dependent claims 2-4, 6-34:**

Claims 2-4, 6-34 are dependent on claim 1 or 5 and therefore likewise meet the PCT requirements for novelty and inventive step.